# Doctoral researcher in circularity, environmental and economic impact of wood cascading
## Aalto University



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| **Job Title** | Doctoral researcher in circularity, environmental and economic impact of wood cascading |
| **Department** | T107 Bioproducts and Biosystems |
| **Institution** | Aalto University<br>, , Finland |
| **Date Posted** | Jun. 27, 2024 |
| **Application Deadline** | Open until filled |
| **Position Start Date** | Available immediately |
| **Job Categories** | Graduate Student |
| **Academic Field(s)** | Environmental Sciences/Ecology/Forestry |
| **Job Website** | https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-researcher-in-circularity--environmental-and-economic-impact-of-wood-cascading_R40190-2 |
| **Apply By Email** | |

**Job Description**

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors and close to 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community’s diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

We are now looking for a

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Background

Wood construction can play a significant role in mitigating climate change; however, we need to use forest resources thoughtfully to maximize their carbon sequestration potential, ensure their health, preserver biodiversity and maintain ecosystems services. Reusing and recycling wood products in a material cascade can improve the environmental performance of wood construction as well as enhance resource efficiency. Furthermore, cascading wood products can lead to value creation through the provision of services to circulate side-products and use waste materials. Despite this, the uptake of wood cascading has been slow due to concerns about the availability and quality of waste wood, competing regulations and a lack of markets for cascaded wood products. In particular, a lack of more convincing information about the environmental, social, and economic benefits of wood cascading is hindering uptake.

Your network and team

The position is open in the [url=https://www.aalto.fi/en/department-of-bioproducts-and-biosystems/wood-material-technology]Wood Material Technology group headed by Prof. Mark Hughes.

The [url=https://www.aalto.fi/en/department-of-bioproducts-and-biosystems]Department of Bioproducts and Biosystems (Bio2), one of the three departments in the School of Chemical Engineering at Aalto University, has an internationally leading reputation in basic and applied research for the development of advanced materials from natural resources. It is one of the leading European research and higher education institutions in the field of sustainable chemistry and engineering based on the utilization of renewable resources. Bio2 aims to contribute to the development of novel solutions to move towards sustainable primary production and processing systems that can produce materials with fewer inputs, less environmental impact and reduced greenhouse gas emissions. Within bioscience, the department has research in bioprocess technology, molecular biotechnology, enzyme technology, metabolic engineering, synthetic biology, biomolecular, and biohybrid materials. Other strengths of the department include sustainable materials and products based on lignocellulose, ranging from nanomaterials to novel cellulose-based textiles.

Your role and goals

As part of the ongoing program of work in the Wood Material Technology group into resource-efficient wood construction for climate change mitigation, we are now seeking a doctoral researcher to study how the use of wood from demolished buildings, and other currently unused sources, can affect the

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circularity, environmental impact, and economics of wood construction. The primary aim of this doctoral research is to conduct an environmental and economic analysis of the cascading use of wood using LCA and LCC methodologies and assess circularity and resource efficiency.

Your expertise and background

We are seeking a motivated candidate with a suitable master's degree and expertise in LCA and LCC methodologies. Knowledge of the circular economy and recycling as well as experience of wood materials would be advantageous.

What we offer

Doctoral studies at Aalto University take approximately four years. The candidate will be granted a one-year contract with the possibility of extension. The starting salary for a doctoral researcher is approximately 3000 EUR/month.

If you are chosen for this position, you will apply for the study right in doctoral studies at Aalto University School of Chemical Engineering. Please check the student information and admission criteria at https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-chemical-engineering. In particular, please pay attention to the mandatory skill level in English.

The expected starting date of the position is in September 2024 or as agreed.

We work in Otaniemi, Espoo. The Otaniemi campus is a thriving and connected community of 100 nationalities, 13 000 students and 4 500 employees. Life at the transformed campus is vibrant and filled with amazing architecture, calming nature, and a variety of cafes, restaurants, services and good connections along the metro line.

Ready to apply?

If you want to join our community, please submit your application through our online recruitment system no later than August 11th, 2024, the link on Aalto University's webpage ("Apply now"). If you are an Aalto employee, please apply via Workday system (internal jobs).
To apply, please include the following documents in English and as a single pdf document: *
1 page motivation letter *
CV with a possible list of publications and the title of your MSc thesis *
1 page description of previous relevant research experience and studies *
Scanned copy of the master's degree diploma & transcript of records for master's degree (or

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equivalent)

Aalto University's employees and visitors should apply for the position via the internal HR system Workday (keyword Find Jobs) by using their existing Workday user account (not via the external webpage for open positions).

For further information about the position, please contact Professor Mark Hughes (mark.hughes(at)aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos: [url=https://www.youtube.com/watch?v=5k_og_6zUJQ]Aalto University - Towards a better world, [url=https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be]Aalto People, and [url=https://www.youtube.com/watch?v=ZK6pDWm1_CE]Shaping a Sustainable Future. You can also check out our webpage about Aalto and Finland: [url=https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package]https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package and our new virtual campus experience: [url=https://virtualtour.aalto.fi/]https://virtualtour.aalto.fi/.

About Finland

Finland is a great place for living with or without family - it is a safe, politically stable, and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: [url=https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/]https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/. For more information about living in Finland: [url=https://www.aalto.fi/en/node/32446]For international staff | Aalto University

Aalto University reserves the right for justified reasons to leave the position open, to extend the application period, and to consider candidates who have not submitted applications during the application period.

**Contact Information**



**Contact**

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Finland